

VIRGINIA WILDLIFE

SEPTEMBER 2000

ONE DOLLAR





Director's Column

William L. Woodfin, Jr

Last year our department began development on a new and exciting program that will showcase the vast diversity of wildlife in Virginia. With nearly 400 resident and migratory bird species seen during the year, the Commonwealth has one of the highest diversities of birds in the Eastern United States. Along with many other wildlife species, like deer, bear, and turkey. The Old Dominion is a natural for establishing a statewide system of birding and wildlife trails. The trails will allow for the creation of new opportunities for the more than 2.2 million individuals who currently spend nearly \$700 million annually on wildlife watching recreation in Virginia.

We recently received two major grants to support development of the coastal phase of the Virginia Birding and Wildlife Trail. The Commonwealth Transportation Board has approved \$300,000 for this initiative as a transportation enhancement project. In addition, the Department will receive \$100,000 from the state Department of Environmental Quality's Virginia Coastal Resources Management Program in October. The collaborative funding received for the Trail is indicative of the tremendous support exhibited for this project. With this funding we look forward to creating the first phase of what will one day be a birding and wildlife watching trail that will allow residents and visitors



L to R: William L. Woodfin, Jr., Director of the Virginia Department of Game and Inland Fisheries, and J. Carson Quarles, VDGIF Board Chairman, received a check for \$300,000 at the July 20th VDGIF Board meeting. Jeffery C. Southard, Assistant Commissioner Environment, Transportation Planning and Regulatory Affairs for the Virginia Department of Transportation, made the presentation. The money is the first of two major grants to support the development of the coastal phase of the Virginia Birding and Wildlife Trail.

alike to more fully enjoy Virginia's great natural resources.

Over the next year, the department will use the funding from the two grants to complete the development of the coastal phase of the Trail. This effort will include the specific delineation of the routes and the development of a Trail map and signs. Funding may also be available for specific site enhancements, such as boardwalks or observation platforms. Additionally, we will host a series of community meetings in Western Virginia to gain formal community support and receive site nominations for the second (mountain) phase of the Trail.

Nature tourism is the fastest growing segment of the tourism industry in the United States and the economic and conservation benefits of this kind of project will be far-reaching. The birding trail will potentially offer a means for birders and wildlife enthusiasts to access

previously inaccessible areas. Driving routes and additional hiking trails off the main routes will link wildlife watchers with some of the best viewing areas in the state. The creation of the Virginia Birding and Wildlife Trail will greatly enhance the list of travel destinations in the Commonwealth. And, most importantly, it will increase local awareness of environmental stewardship by bringing people into the outdoors and making them more aware of their natural surroundings.

We have actively worked with communities, businesses, and citizens in the coastal area to identify potential sites to be included on the Trail and have received more than 200 site nominations. If you would like to get involved, regardless of where you live, or would like more information about the Virginia Birding and Wildlife Trail, please check our Web site at www.dgif.state.va.us for the special birding trail updates.



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Virginia Department of Game & Inland Fisheries

The Virginia Department of Game & Inland Fisheries is a state agency responsible for the management and conservation of the Commonwealth's wildlife resources. The department's mission is to protect and enhance the state's natural resources, and to provide for the sustainable use of these resources for the benefit of the people of Virginia. The department's programs include wildlife management, habitat conservation, and public access to natural resources. The department also provides technical assistance to local governments and private landowners in the management of their wildlife resources.

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L HUNTING & FISHING LICENSE FEE S

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Check out "Owls" found on page 15. It's part of a new addition to *Virginia Wildlife* magazine called "Wild in the Woods." Each month it will explore the mysteries of our vast natural resources and abundant wildlife.

VIRGINIA WILDLIFE

Cover: Wood duck (*Aix sponsa*), photo ©Scotty Lovett.

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Hunters For



The Hog Island Wildlife Management Area Youth Waterfowl Hunt is helping to shape tomorrow's conservationists.

story and photos by Ralph W. McDowell

With check-in scheduled for 5:00 a.m., I figured my 4:30 arrival would beat the crowd. Not even close. By comparison, I was late. As I searched for an empty parking place in front of the visitors center, headlights of additional "late" arrivals revealed a dozen camo-clad kids already preparing their gear. On the building's front porch, floodlights silhouetted even more, and despite the hour, there wasn't a sleepy eye in the bunch. For most, excitement and anticipation had driven off sleep hours before.



Tomorrow



After watching a magnificent sunrise and a vast array of wildlife, young hunters at the 1999 Youth Waterfowl Hunt gather to reflect on their experiences. They are quick to learn that there is more to the hunt than just shooting a gun. It's a chance to learn about the natural world and the role we all play as conservationists. Background photo ©Dwight Dyke.

Beneath the pre-dawn calm covering colonial-era Virginia, this isolated knot of energy and expectation had caught me off guard. It shouldn't have. Had I forgotten the thrill of my own first duck hunt, shared with my dad, 40 years before?

Thanks to the Virginia Department of Game and Inland Fisheries (VDGIF) and Ducks Unlimited (DU), I was given the chance to refresh my recollections while a score of young hunters created memories of their own. The kids, aged nine through 15, along with their adult chaperons, were gathered at the Hog Island Wildlife Management Area (WMA) for the Youth Waterfowl Hunt, an October event co-hosted by VDGIF and DU. Since 1996, the Department has opened its managed wetlands along the shore of the James River for this annual day of waterfowling activities.

The week before the hunt, I had a chance to speak with VDGIF Director William L. Woodfin, Jr., who told me that the outing near Surry, Virginia offered the citizens of the

state much more than might be apparent to the casual observer. "We're all better off for the experiences gained by the young hunters," he said. "They're exposed to the ways of nature—the science, the biology—and how they're connected to our natural resources. The chance to trade the computer's virtual reality for the real thing, and to actually take part in it, is invaluable." The Director added, "Hunters are wildlife watchers in the fullest sense. They don't see just the ducks, but also the other parts of the picture. Soon, they put it all together and realize the importance of each component to the whole. That's something fewer people understand as our society moves indoors."



Driving to Hog Island, I remembered that Director Woodfin had also talked about sharing the outdoor experience and how meaningful discussions of those times could strengthen family ties and deepen a respect for our natural resources. My father had taken me hunting as a child, and after several years out of the field, I had returned to devote much of my time to conservation efforts. Years later, my dad's involvement had made a difference.

The day's program started at the visitor's center with an orientation meeting, a large portion of which Wildlife Biologist Tony Castille devoted to safety and ethics. The hunters and chaperons then loaded into Department trucks and headed for the blinds scattered among the wetland impoundments. At blind number seven, a chilly north breeze laid broken bands of black ripples across the water as Brandon White, chaperoning his step-brother Donald Baker, joined with Phil West and son John, and Tom Waltrip and his boy Khoury, to ready the decoys. Ben, the West's good-natured lab, helped by bounding through the



Hog Island Wildlife Management Area

The Hog Island WMA offers visitors wetland and river vistas from two elevated wildlife viewing stands; access to the James from designated shoreline fishing areas and a VDGIF public-access boat ramp on the southeast side of the property. In addition to the special youth waterfowl hunt, controlled public hunting, including limited waterfowling from Department blinds by special drawing, is allowed during the regular seasons. More information about Hog Island and other Virginia WMAs can be found in the publication, *A Guide to Virginia's Wildlife Management Areas*, available through VDGIF, P.O. Box 11104, Richmond, VA 23230-1104. Send a \$5 check payable to "Treasurer of Virginia." □

water, giving the decoy spread lots of life-like motion. By shooting time, the two sons and both step-brothers had settled in, with the fathers hidden just behind the blind's back wall. Within minutes, Phil's excited "In front!" signaled the beginning of an assault by erratic little teal; and then "Above you!" from Tom as several more birds rocketed overhead. Now both fathers worked their calls. "They're circling back. Wait...wait...OK, NOW!" One of the shooters found his mark. At Phil's signal, Ben launched from beside the blind and churned a wake towards the downed bird. Distant reports from unseen guns indicated that other young hunters were also into ducks.

For the next hour, the boys got in some good shooting. Both blue-winged and green-winged teal darted past the blind, and although they weren't allowed to hunt geese, the boys enjoyed watching a flight of Canadas check out the decoys. It wasn't long after 8:00 a.m. when the group decided to pick up their gear and turn toward the visitors center. Back over their shoulders, a dozen



VDGIF and Partners Improve Habitat at Hog Island WMA

The hogs of the 17th century English settlers, after which Hog Island was named, are gone. Today the Virginia Department of Game and Inland Fisheries (VDGIF) manages the 3,908 acre Hog Island Wildlife Management Area (WMA), and its 600 acres of natural tidal marshes and diked wetland impoundments for native wildlife. The VDGIF staff, with assistance from partnering organizations like Ducks Unlimited and the U.S. Fish and Wildlife Service, work together to restore and improve the habitat at the WMA. The installation of water control structures allows biologists to enhance the native wetland habitat and to plant supplemental wildlife food plots; selective spraying and burning helps control phragmites, an introduced and invasive wetland plant endemic to the area. □

teal circled and set down in the impoundment.

After checking in, the participants gathered along the shore of the James River for a series of demonstrations. The Department's Gary Costanzo, Ph.D. and head waterfowl research biologist—also known as "Dr. Duck"—led off with a talk about waterfowl behavior and biology. Following duck calling and retrieving demonstrations, speakers offered hunting tips, discussed safety and ethical concerns, and answered

questions. The group then moved to an open field and learned about the Department's bird banding program and, as souvenirs, received sample VDGIF bird bands. To the crowd's delight, the demonstration portion concluded with a live firing of the Department's rocket-powered capture net.

After a hot-off-the-grill lunch, the young hunters received Ducks Unlimited Greenwing (youth) memberships, T-shirts, and duck calls. During my earlier



conversation with Department Director Woodfin, he'd thanked DU and mentioned how partnering with private conservation organizations could multiply the efforts of all involved; so I asked Jenny West, the DU District Chairman, about the Ducks Unlimited connection. She told me that DU helped fund habitat improvement projects at Hog Island and how the local chapter had been a part of the Youth Hunt for the past couple of years. She continued, "The event is open to the public and contributions from DU supporters, especially local businesses, make these activities happen. The lunch, the shirts, even the raffle

Blue-winged teal ©Scotty Lovett

prizes—all have been donated.” As she prepared to get the raffle underway, Jenny added, “These kids are tomorrow’s conservationists, so it’s important to expose them to our natural resources at an early age.”

The raffle, with multiple winners, concluded the activities, and before 11:30 a.m., I was leaving the visitors center parking lot. That the Youth Waterfowl Hunt had been a success was obvious. The kids, chaperons, dogs, and even the hard-working Department

Thanks to the partnerships between organizations like Ducks Unlimited, the Virginia Department of Game and Inland Fisheries and the many volunteers, the Youth Waterfowl Hunt program has become an overwhelming success. It is also a great way to broaden youngster's horizons and to help safely introduce them to the rich traditions of hunting.



and DU organizers, had enjoyed the event. I wondered though, if hope for tomorrow lives within memories created today; a generation from now, will this day have made a difference? After watching the young hunters and their families, and thinking back to my dad and our first duck hunt together, I realized that I had known the answer for 40 years.

The Youth Waterfowl Hunt is open to those age 15 and under, but space is limited. For more information call (757) 253-7072. □

Ralph McDowell, an environmental consultant and freelance writer, and lives in Nokesville, VA.



Cruise the Historic James River, Courtesy of VDOT

Combine a stop at the Hog Island Wildlife Management Area (WMA) with your next visit to Colonial Williamsburg and Jamestown, and on the trip, cruise the river that Captain John Smith sailed, courtesy of the Virginia Department of Transportation (VDOT). Follow Virginia State Route 31 south from Williamsburg to Jamestown and you'll end up at the Jamestown Ferry. Operated by VDOT, the Jamestown Ferry is actually several ferry boats that cross the James River just west of the Hog Island Wildlife Management Area. Depending on the time of year, the boats leave both sides of the river as often as every 20 minutes, 24 hours a day, seven days a week, at no charge. The 15 minute ride from Jamestown lands you and your vehicle back on the terra firma portion of Route 31 at Scotland, Virginia. Head south and take a left on Route 10 at Surry, then left on Route 617 and left again on Route 650 to the Hog Island WMA. While on the south side of the James River, there are more historic sites to visit: Smith's Fort (Capt. John Smith's original fort); Chippokes Plantation and State Park (an old working plantation); and Bacon's Castle (one of this country's oldest documented brick houses and garden sites). The Jamestown Ferry schedule includes information about these historic sites and is available at www.vdot.state.va.us (click General Information, then Jamestown Ferry) or by calling 1-800-VA-FERRY. □

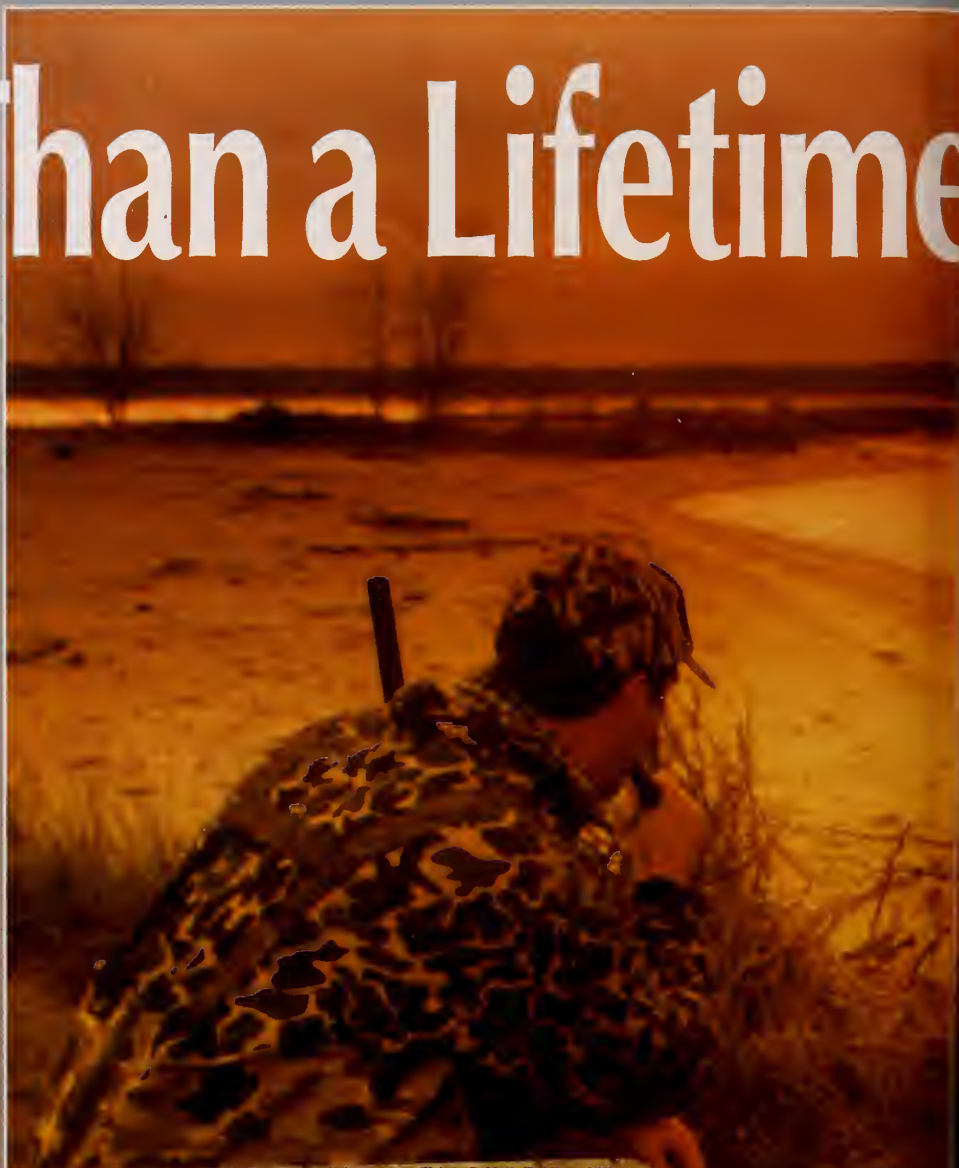
More Than a Lifetime

Each year thousands of people purchase a hunting license. For many it represents a right to hunt, but for others this simple slip of paper holds a collection of irreplaceable memories.

by Bob Duncan

A hunting license has always been more than a piece of paper to me and I guess that it is for that reason, among others, that I still have all that I have ever purchased and all that my paternal grandfather bought as well. These licenses virtually transcend the history of the Department of Game and Inland Fisheries and no small part of our own family history as well.

Hunters and anglers have, by their purchase of licenses, provided the majority of funding for wildlife conservation and management activities in the Old Dominion since the creation, in 1916, of a state agency mandated with wildlife resource responsibilities.



Department Game and Inland Fisheries, Richmond, Va.

VIRGINIA COUNTY HUNTERS' LICENSE

The person herein described, who certifies that he has been a bona fide resident of this State for the past six months, has paid the license fee of \$1.00 and is hereby permitted to hunt or trap in the County of Bedford, Virginia and the twelve months succeeding the date of issue, 1932, but only in accordance with regulations provided by law.

Name Lesman Duncan

Address Bedford Residence Bedford

Age 37 Color White Height 5'6" Eyes Blue

Given under my hand this 17 day of April 1932

Clerk of the Court of Bedford County City Bedford

**VIRGINIA
COUNTY RESIDENT**

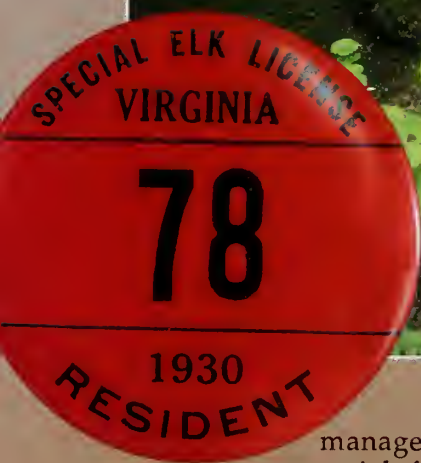
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**HUNTING-TRAPPING
FISHING
1932-33**

of Hunting Licenses



© Dwight Dyke



Early game management ideas were straightforward and so were the licenses. Although the Renaissance period for licenses was probably in the mid 1920s through 1932, when paper hunting licenses were accompanied by a corresponding hunting license button. These highly prized items from bygone days are now sought after by collectors of hunting related memorabilia.

While some folks like to think of hunting as a constitutional right, related to the second amendment

right regarding firearms, the fact is that hunting has always been a privilege under state law. Recent legislation had been passed which will put this issue before the citizens of the Commonwealth for a vote in the fall of 2000. If this measure passes then hunting, angling, and the right to harvest game would in fact become a state right guaranteed via a constitutional amendment to our State Constitution. The majority of Virginians support legal hunting and many are concerned that, as our citizenry become even more removed

from the land, the day will come when the future of hunting and wildlife related recreation will be called into question.

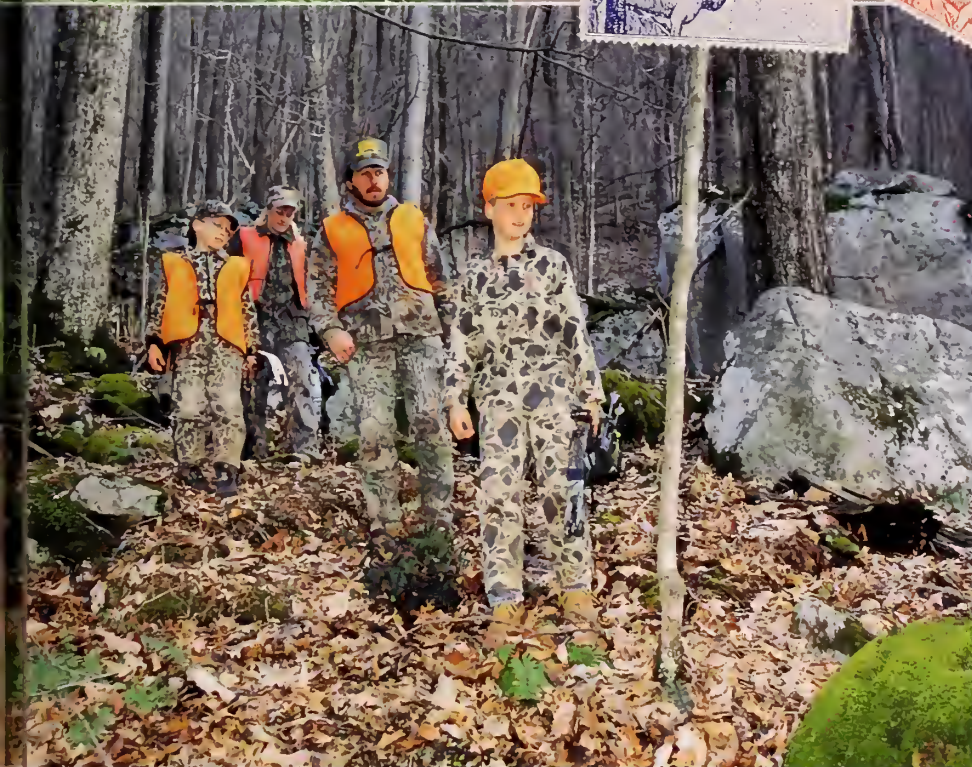
The science of wildlife management started taking bigger steps in the late 1930s. Major legislative changes were occurring with the passage of the Pittman-Robertson Bill, which was co-written by Virginia's own Congressman A. Willis Robertson, former Chairman of the then called Game Commission. This, and a cooperative agreement signed with the United States Forest



Service, provided a great foundation on which to build the wildlife management programs so valued by Virginia sportsmen and women today.

While the Department had a brief fling or two with elk restoration and game farm propagation of game birds, these efforts eventually gave way to the more successful relocation of live captured native species, such as wild turkey and white-tailed deer. Wildlife management in the Old Dominion was coming of age under the capable leadership of men like Dick Cross, Chester Phelps, Jim Engle, Ned Thorton, Joe Coggin, Jack Gwynn, Charlie Gilchrist, Harold Trumbo, Charlie Peery, John McLaughlin, and many others of their generation. Meanwhile, Virginia hunters continued to do what hunters do, they bought their li-

©Dwight Dyke



©Dwight Dyke

Money generated from the sale of hunting licenses is one of the main sources of funding for the Virginia Department of Game and Inland Fisheries and is used to help manage the state's vast wildlife resources. For many people, purchasing a hunting license is the way to experience the thrill of hunting, for others it represents a way of life.

G. 1. 5-31-15-59m.

No. **15866** VIRGINIA COUNTY HUNTERS LICENSE.

The person herein described, having complied with the provisions of the "Game Act," and having paid the license fee of One Dollar, is hereby licensed to hunt the County of Roanoke, Virginia, during the twelve months succeeding the first of July, 1916, but only in accordance with the regulations and restrictions provided by law.

DESCRIPTION OF LICENSEE

Name John H. Smith

Place of Residence Roanoke, Va.

Postoffice Address Roanoke, Va.

Color White Color of Hair Brown Color of Eyes Blue Height 5' 10"

Given under my hand this 22 day of Sept, 1916.

Clerk of the Roanoke Court of Roanoke Co., Va.

1916-17

censes, thus supporting the Department's work and they pursued whatever game was allowed via Department regulation.

As a youngster growing up in Southwest Virginia, the purchase of a hunting license was somewhat of a rite of passage, at least within my family, if not with society at large. Sportsmen were well respected in the community. I recall that individuals were well-known and respected for their abilities to hunt certain species. This was in the age long before "How To Videos" and outdoor programs on television.

While hunting licenses have served as a record of my family's long-standing participation in hunting in Virginia, these pieces of paper mean so much more to me. They are cultural artifacts that represent tangible connections with family members and recollections of events that make up so much of my family's history in this great Commonwealth of ours.

These licenses chronicle the increasing complexity of game regulations and the creation of new hunting opportunities, which accompanied the establishment of new hunting seasons and/or bag limits. As a teenager I so enjoyed bowhunting on the Jefferson National Forest, especially in places like the Dismal and No Business Creek sections of Bland County where I witnessed some of the last elk tracks on the land in the early 1960s or in the high country surrounding Mountain Lake where the cold weather and snow came earlier than in the New

River Valley we called home. More than once I wondered if I could get the family passenger car (non-four-wheel drive) back down the mountain after a fresh snowstorm! On other occasions my dad drove me to the North River portion of the George Washington National Forest so I could join an uncle and a cousin for a Saturday of bowhunting at their camp. Hunting with family and good friends was and still is so important.

That I still have my grandfather's last hunting license and the one I purchased along with him on that same day in 1966, brings back memories of a lifetime of following my father and his father in pursuit of a family tradition that extends back to the home of our ancestors

archery license, special muzzleload-er license, bonus deer permits, special goose permits, and later, the Harvest Information Program (HIP), have all been related to harvest initiatives and management programs aimed at allowing Virginia hunters to enjoy and partake without harming the treasured wildlife resources we hold in public trust.



It is with rich heritage in mind that the Department will offer for sale commemorative buttons that will be available for the year 2000 hunting season. While this button is not a license, it will serve as a treasured reminder of the hunting heritage that has so greatly shaped Virginia and her people. The 2000-01 buttons are \$1.00 each. Make check payable to the Treasurer of Virginia. They may be ordered by writing to 2000-01 Buttons, VDGIF, P. O. Box 11104, Richmond, VA 23230-1104.

As hunting licenses and regulations have indeed become more complex, it may be worth considering that something as valued as the privilege of hunting is well worth the effort. At the

same time, everything from death to taxes has increased in complexity. However, I think you would agree that these other complications to our daily lives are not nearly as rewarding as the quality of the experiences gained from a lifetime of hunting.

That we will move to a new and

more technologically advanced system of license sales is inevitable. These systems should greatly increase the convenience of buying licenses via the phone, internet, or through outdoor businesses. At the same time, computerized license sales will provide the Department a database of customers, which will greatly enhance its ability to serve and to communicate with interested sportsmen and women across the Commonwealth.

As we enter this new era, it is only fitting that we reflect on the 84-year history of the Department of Game and Inland Fisheries and the importance of license sales as the funding mechanism that has brought about such abundant wildlife and the opportunities for enjoying those resources.

I cherish the time spent hunting and fishing with family members down through the years, especially the outings with my Granddaddy Duncan, who had a very strong influence on my interest in wildlife and the outdoors. My guess is that he would be very pleased, not only with modern day game populations and hunting opportunities, but more importantly to know that the family tradition of hunting is being carried on by subsequent generations of his family. That I have only recently been united with an older half-brother Gordon, who I had never known, and found him to be equally dedicated to hunting and wildlife conservation, says volumes to me about how deeply felt and important hunting really is to the human spirit.

As I look forward every year to buying my hunting licenses, I am reminded of bygone years and a lifetime of hunting experiences and at the same time I am eager with anticipation as to what the future season may hold in store. And yes, each year's hunting licenses, as did the ones preceding, still go into the box right along side of granddad's. ■

Bob Duncan is the Director of the Wildlife Division, of the Virginia Department of Game and Inland Fisheries.



in the very highlands of Scotland and then later in the highlands of Floyd County. That I was to become the modern day equivalent of a "game keeper" is a fact not lost on me.

The establishment of a special

Wild in the woods

Owls

by Carol Heiser and Sally Mills
illustrations by Spike Knuth

Walking down the lane one winter night, you feel a burst of cool air above your head. Out of the corner of your eye you see a very large wing open and close. Then nothing. The black sky has swallowed up whatever it was, as soundlessly as it appeared. The experience leaves you feeling small and a bit scared. You may have just come close to meeting an owl.

Owls have been our silent partners of the night for centuries. They are little understood and their tendency to keep to the dark hours, or “nocturnal” behavior, has helped them remain mysterious. So has their silent flight.

Owls are still plentiful throughout many parts of Virginia because the state is blessed with wide open spaces, deep forests, and marshy coastal areas. Owls are great scouts of the night and prey upon mice, voles, rabbits, and even small birds for food. In fact, just like bats keep mosquitoes in check, owls help to keep our rodent population under control.

If you have ever seen an owl search for its next meal—maybe at dusk—you know what an excellent hunter it is. Perching on a tree branch or fencepost, it will study an open meadow for any sign of movement and swoop down upon its prey with uncanny precision. Owls are equipped with just the right tools to hunt in the dark: binocular vision and very large ears.



Barn Owl
Tyto alba

Virginia's Resident Owls

Virginia is home to about six or seven different owls. Four species live here year-round. Others migrate to Virginia during the winter months, or start families (usually two to five chicks) in places like the mountains of the Southwest and then travel north for the rest of the year.

Barn Owl
Barred Owl
Eastern Screech Owl
Great Horned Owl



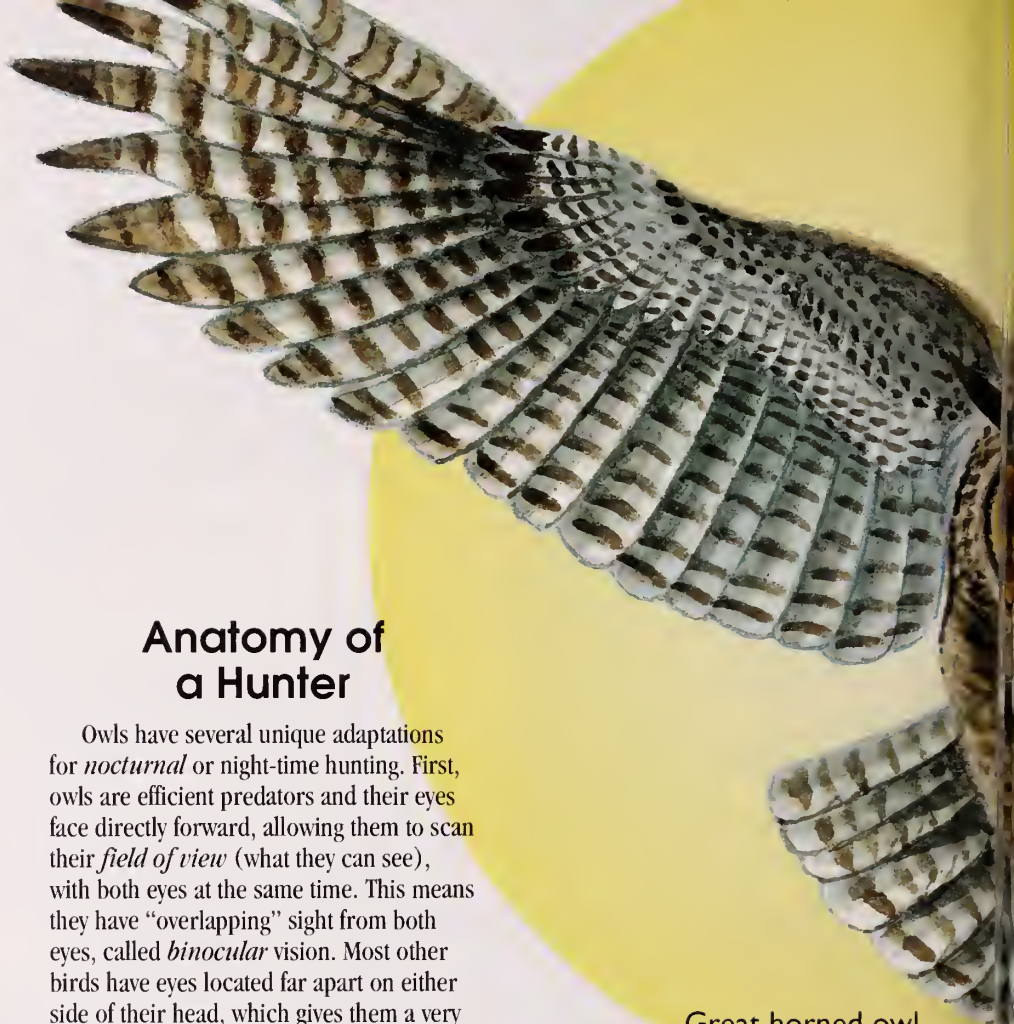
Barred owl
Strix varia

Anatomy of a Hunter

Owls have several unique adaptations for *nocturnal* or night-time hunting. First, owls are efficient predators and their eyes face directly forward, allowing them to scan their *field of view* (what they can see), with both eyes at the same time. This means they have “overlapping” sight from both eyes, called *binocular* vision. Most other birds have eyes located far apart on either side of their head, which gives them a very wide field of view to detect predators. A pigeon can see 340°; however, it only has binocular vision for 20° of that. An owl, on the other hand, has a 110° field of view but binocular vision for 70°.

Second, unlike other birds of prey, an owl's beak is deflected downward so that it does not get in the way of its field of view. A third and most significant adaptation is the internal structure of an owl's eye. The *cornea* or “window” to the eye is very large and allows a maximum of light in, and the *lens* is very rounded to focus the projected image more closely and discriminate finer details. The *retina*, a layer of cells inside the eye where the image falls, is also equipped with many more *rods* (light-receiving cells) in an owl than in other birds. Owls' eyes are therefore very sensitive to even the tiniest bits of light on an overcast night, and they can easily spot a hapless mouse or skunk.

The ears of an owl are oversized by human standards. The left and right are placed “asymmetrically,” (at different positions) on the sides of its head.



Great horned owl
Bubo virginianus

This helps the owl quickly pinpoint both the direction and distance of a sound. Scientists studying owls believe the birds can hear many more sounds at higher frequencies than other animals or humans. This explains how owls can zero in on the high-pitched notes of small rodents scurrying through a field. At night, owl ears are just as important—if not more so—than their eyes in catching the next meal.

As predators, owls have other tools working in their favor. The forefeathers of owl wings are fringed along the edge. This feature allows air to pass through silently and not tip off unsuspecting critters on the ground. Also, owls can turn their heads almost full circle, (about 270°) which gives them a much wider viewing range without moving from their perch.





Finding Owls

Learning to see owls takes time and patience. But, like other detective work, you're sure to discover something of interest outdoors and learn a thing or two about how the world goes around. The best way to begin is to look for signs, or clues, of an owl nearby.

When to Look

Many species of owls become active in the hours just before darkness, just before sunrise, or on cloudy, overcast days. Generally, the best time to see an owl is at dusk.

Where to Look

Look up! As you walk along a forest edge, or through a tree-studded field, study the lower branches of trees. Dead trees are especially good choices because owls often use hollowed out

cavities to sleep in during the day, or "roost," sometimes with their mate. Also, if you live near a wooded or marshy area, look in the viney patches and honeysuckle clusters that form along field edges and fence lines and in wet, lowland areas.

What to Look For

On tree branches, look for white patches, called whitewash, where owls have been sitting. If you see a patch, look down on the ground directly underneath for more whitewash and evidence of a recent meal. Meal remains are coughed up in a tight ball of fur and bones called a pellet. They offer great clues about recent dining habits.

Owl Folklore

Perhaps because owls cleave to the night and make rather eerie sounds, they have long played a central role in stories and myths about the natural world. Many cultures around the globe associate owls with death, evil, or bad fortune. Others, such as native Indian tribes, attributed them with great strength and spirit and admired their hunting prowess.

The Penobscot Indians of Maine tell the story of a great horned owl that married one of their own— a young woman named Flowing Stream. She rejected his first attempts at courtship, but his sad song in the night eventually touched her heart. They married. In the story the great horned owl hunted for Flowing Stream and her family, and was a good husband.



Eastern screech owl
Otus asio

Backyard Owling

Eastern screech owls, barn owls, and great horned owls are quite adaptable. They have been found in all sorts of habitats—from open farm fields, to suburban neighborhoods, to bustling cities. No matter where you live, you can improve your chances of seeing and studying owls by making your yard or neighborhood more appealing to them.

- If you live on a farm or large piece of land, leave natural edges—vines and briars—between open fields and woods instead of tidying up the ground.

- Encourage whoever farms your land to leave one field alone each year and let wildflowers and weeds go unmowed. Such areas attract small animals and rodents, and become home to good owl food.

- If you have an outbuilding, you might put up a nesting box (contact us!).

- Allow a dead tree to

remain standing if it is not in harm's way. Owls often roost or nest in tree cavities and at the tops of dead trees.

- Plant trees and shrubs that produce berries and nuts to draw small birds and animals. They, in turn, feed animals further up the food chain, including owls.

- Maintain bird feeding stations, where scattered seeds fall to the ground and attract small rodents and other critters dined upon by owls.

Seeing is Believing— or The Eyes Have It!

...an activity synopsis from Project WILD, a supplementary wildlife curriculum guide for educators of grades K-12.

For details, call the WILD Coordinator at the Virginia Department of Game and Inland Fisheries, (804) 367-0188.

Objective: students will identify different kinds of vision as an example of adaptation in animals

Grades: K-6

Subjects: Science, Language Arts, Art

Materials: For stations—a kaleidoscope (the kind you can see through); a pair of binoculars or a telescope; and a fish-eye mirror (or photos taken with such a lens). Other materials: magazines with wildlife photos, or wildlife stamps; glue; poster material.

Though not thought of as a regular resident to

Virginia, the tiny northern saw whet (left) and the long-eared owl (far right) are frequently seen in various parts of the state during the fall and winter months.

Northern saw-whet owl
Aegolius acadicus

Background: Vision is one example of animal *adaptation*. An adaptation is a specialized feature that an animal has in order to survive in its particular environment. For example, predatory birds, such as eagles, hawks, and owls, have *binocular* vision, which allows them to see their prey at great distances. While they do not have actual tunnel vision (as with a telescope) they have exceptional peripheral vision. Insects, on the other hand, have compound eyes made up of different "facets," like the parts of a *kaleidoscope*. Each facet functions like a sepa-



rate eye and allows for extreme peripheral vision to detect predators. In contrast, fish have eyes with wide-angle perception like a *fish-eye mirror*, and they can easily see predators and food sources.

Procedure:

1. Set up three stations or learning centers in the classroom: one with a kaleidoscope, the second with either binoculars or a telescope, and the third with a fish-eye mirror (or photos of objects taken with a fish-eye lens on a camera).

2. Have the students visit each station, trying out the different kinds of vision.

3. Ask the students to guess what kinds of animals might have each of these three types of vision, emphasizing that the way an animal sees is a form of adaptation.

4. Divide the class into three groups and have each group cut out magazine pictures and make a poster for one of the three stations, showing the kinds of animals which have that particular kind of vision.

prey and activities suitable for grades 4-12. Cost \$20, quantities limited; contact The Peregrine Fund in Boise, Idaho at (208) 362-8687.

Hunters of the Sky, edited by Science Museum of Minnesota, Educational Resources, c. 1994 (43 pp.). Activities for grades 4-10, with good sections on adaptations. Cost \$ 7.95 + \$2 shipping and handling; contact the Education Office of the Science Museum of Minnesota in St. Paul at (651) 221-4551.

Books:

Owls—Their Natural and Unnatural History, by John Sparks and Tony Soper; first published in 1970 by Tapplinger Publishing Company, NY; reprinted 1979 (206 pp.). Excellent, in-

Web Sites:

The Owl Pages, <www.owl.au.cd>

The Raptor Center at the University of Minnesota, <www.raptor.cvm.umn.edu>

Ask Me Why....

Q: Why do owls cough up pellets?

A: When a bird like an owl or hawk eats a meal of a small mammal, bird, or other prey, parts of the animal can not be digested and do not pass all the way through the owl's system. Instead, the owl coughs up a firm, compact pellet that contains the bones and fur or feathers of the animal it has eaten. □



Learning More...

Owl Pellets

Several mail-order companies supply owl pellets for dissection. Here's two picked out of a hat: Pellets, Inc. of Bellingham, WA [(360) 733-3012] and Genesis of Mt. Vernon, WA [(800) 4PELLET]. Look in your local yellow pages under 'biological products' for other possible suppliers.

Curricular Supplements:

Wise as an Owl, by Lisa Langelier, c. 1992, The Peregrine Fund, Boise ID 83709 (76 pp.). Provides background information on birds of

depth text on all aspects of owl ecology and adaptations, with numerous drawings and photos.

The Moon of the Owls, by Jean Craighead George, c.1993, Harper-Collins Children's Books, NY (47 pp.). A beautifully illustrated story about the courtship of a pair of great-horned owls; upper elementary reading level.

Long-eared owl
Asio otus



Virginia Outdoor Weekend

September 29-October 1, 2000
Hungry Mother State Park

*A*re you looking for a great way to learn more about the outdoors, wildlife, and our natural resources? Then mark your calendar to join us at The Virginia Outdoors Weekend (VOW), September 29–October 1, 2000, at Hungry Mother State Park in Marion, Virginia. VOW is a fun and informative, hands-on event where individuals, couples, and families can learn outdoor skills together. All classes are taught in the field and focus on outdoor skills, conservation, ethics, and safety. Whether you are a beginner hoping to explore new interests or an experienced outdoor enthusiast wanting to improve skills, this event has something for everyone.

Archery, camping, canoeing, fishing, hunting, and photography, are just a few of the outdoor classes that will be offered. Individuals must pre-register for all educational programs in which they plan to participate. Courses will be filled on a “first come, first serve” basis; so sign up NOW.

For more information about The Virginia Outdoors Weekend write to VDGIF Outdoor Education Program, Attention: VOW, P.O. Box 11104, Richmond, VA 23230-1104. You can call (804) 367-6351 or check our Web site at www.dgif.state.va.us.
Photos ©Dwight Dyke



Wonders of the Stream

story & photos by King Montgomery

*"I love streams
because of what they
offer, and because
of who I am when
I share their gifts."*





I love streams because of what they offer, and because of who I am when I share their gifts. A stream is not just a place to fish, but rather it is the home of living creatures of endless variety, charm, and purpose. A stream is not just a stretch of water, but rather it is a strip of connectedness, linking us with our often-forgotten ancestry. Taking time to explore this world and our place in it will bring us great rewards.

All creatures, great and small, seen or seldom seen, contribute to stream society. We may play favorites, preferring fuzzy mammals or beautiful butterflies, but nature doesn't judge by appearance. The spiders, snakes, and toads that some dislike are equal participants in the stream world. What happens to one creature affects, often drastically, what happens to the others. These are lessons we would do well to remember.

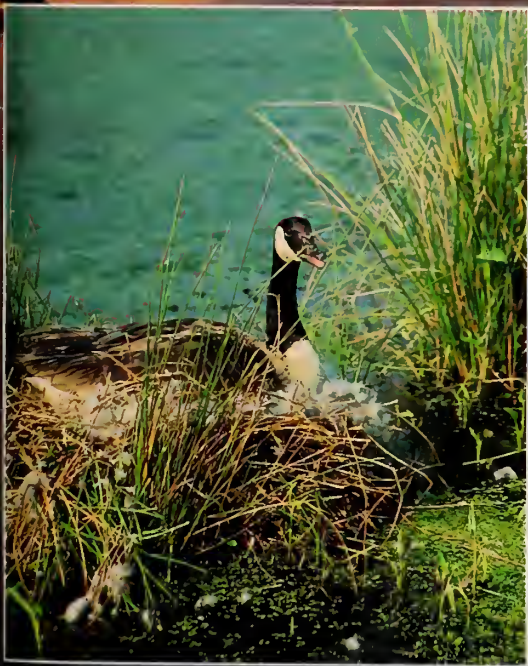
When we step into a stream, back to our own roots, we sense the therapeutic feel of the water that sets the body and soul right, at least long enough until next time. We slow down and look for detail rather than panorama. We, nature's most fearsome predator and destroyer, become stream appreciators. ■

King Montgomery is an award winning freelance outdoor writer from Annandale, Virginia.





Sometimes a bridge or high bank gives us a predator-eye view of fish holding in a stream. This gives us a little edge and our fly or lure might find a fish. But like any predator, if we take too much we will ultimately destroy ourselves and much of equal value caught up in the destruction. If we are the streams' appreciators we must also be their guardians, for our own sake as well as for the many who share in stream-side magic.



In the heat of summer, particularly during periods of drought, trout seek out cooling, oxygen-rich springs that pump life into listless water.





"Trout streams tug at the mind with an insistent, contradictory pull, presenting both a plain and perfect simplicity and a subtle link to sources of hidden significance; fundamentally alike, yet endlessly variable, they offer the solace of the familiar and the inexhaustible fascination of things that can never fully be known."

Ted Leeson, *The Habit of Rivers*, 1994.



Creepy Crawlers



Stonefly ©Monte McGregor

A bug can tell you more than you might think.

by Monte McGregor

Every fall thousands of tourists visit the Peaks of Otter and the Blue Ridge Parkway, in Bedford County, Virginia. Central Virginia's mountains offer natural beauty and a place of refuge from the fast pace of the city. This is especially true in the autumn, when brilliant colors decorate surrounding landscapes. Most people come to picnic, hike, camp, photograph nature, watch wildlife, and more. There are also many areas to sit,

relax, and enjoy the serenity of a small mountain stream as it gently flows through the forest floor. These small waterways, often surrounded by giant poplar and sycamore trees, provide a variety of habitats for all types of wildlife. Belted kingfishers dodge the rainfall of multi-colored leaves, and their loud rattle can be heard as they fly by the waters edge. Dozens of squirrels creep up and down the trunks of oak trees gathering mast for the upcoming winter. Hundreds of mountain redbelly dace and other silvery minnows glit-

Small streams are an excellent place for children to get up close and personal with some hands-on learning about our natural environment. Freshwater macroinvertebrates, like stoneflies, hellgrammites, and crayfish, are just a few of the aquatic inhabitants that help youngsters to learn more about water quality and biological diversity.

Photos ©Monte McGregor.

ter in the sunlight, frequently catching insects on the surface of the water. Hellgrammites search the rocks for unsuspecting prey. Mudbugs creep along the bottom search-



Hellgrammite; ©Doug Stamm



Caddisfly; ©Doug Stamm





One group of tiny animals from which we can learn a lot in the outdoor classroom is the freshwater macroinvertebrates. Invertebrates are animals without a backbone, and include the sowbugs, worms, sponges, leeches, crayfishes, clams, snails, and lots more. The word "macro" means large and thus visible without the aid of magnification. Freshwater macroinvertebrates are abundant and found almost everywhere. In fact, the kinds and numbers of macroinvertebrates usually reflect the current water quality conditions, or health, of the stream. Biolo-

ing for food. Large and small insects are constantly at work gathering food. In a typical day, a family may see several kinds of creatures, from bears and deer to birds and butterflies. Not only is it relaxing to touch base with nature, looking closely at a stream can also provide unlimited educational opportunities for the whole family.

A small stream environment can offer much more than meets the eye. It provides a chance to teach young-

sters about water, streams, geology, biology, biological diversity, and many other facets of our natural world. Aquatic wildlife education can start at a very early age and continues through adulthood. Kids, as well as adults, like the hands-on, up-close approach. If they can feel it, touch it, smell it, and see it they are more likely to understand and appreciate it.



Wavyrayed lampmussel; ©Tommy W. Thompson



Torrey sucker, Monte McGregor



Blue crayfish, *Cambarus* sp.
©Tommy Thompson

gists have used macroinvertebrates to assess water quality for many decades. If the water quality is high, many kinds and numbers are to be found. Examples of organisms that inhabit clean water include stoneflies, mayflies, caddisflies, hellgrammites, riffle beetles, water pennies, freshwater mussels, snails, crayfishes, and many others. These organisms are sensitive and intolerant to changes in habitat and water quality, and can only live if optimal conditions are present. On the other hand, a few organisms with high numbers may tell you the exact opposite: poor water quality. Sludge worms, leeches, pouch snails, and some fly larvae are typically associated with poor water quality. These animals are tolerant of a range of environmental conditions and can thrive under the most adverse habitats. Private citizen groups, such as the Izaak Wal-

ton League of America (IWLA), have developed stream-monitoring programs that rely heavily on macroinvertebrates as stream quality indicators. The programs are very useful to point out the worst and best conditions.

Most people use a small kick net (made from a fibered window screen and dowel rods), or use a small aquarium net to capture macroinvertebrates. A hand-held lens and an illustrated field guide will assist you as you check out the variety of aquatic life present.

Most kids enjoy seeing the creepy looking bugs with unusual body parts of various shapes and colors. Children and adults alike are fascinated to learn that these small in-

sects are the main food source for larger animals, such as fish and birds. Seeing these vibrant life forms in action helps young people understand some of the more complex ideas they learn in school. Basic ecological concepts, such as survival, food chains, and food webs, which are hard to grasp in the indoor classroom come to life in the outdoors. These concepts are critical to understanding the interdependent nature of our ecosystems.

So, spend some time in the outdoor classroom of central Virginia's mountain streams, enjoy the scenery, watch the wildlife, and kick up a few cobbles to see some tiny wonders in the stream. In addition to relaxing in nature and having loads of fun, you will find yourself learning a tremendous amount about wildlife and water quality. □

Monte McGregor is a Regional Nongame Biologist with the Department of Game and Inland Fisheries.

Right: Monte McGregor, a nongame biologist with VDGIF, shares his knowledge of creek creatures with a group of youngsters along the banks of the Big Otter River, in Bedford County.



©Julie Baisden



Dragonfly, ©Doug Stamm



Blacknose dace; Monte McGregor



Journal

Deer Herd Management Efforts Paying Off at Fort A. P. Hill.

by Ken Perrotte

An increased emphasis on harvesting does is paying off in bigger, healthier deer at Virginia's largest military installation offering public hunting.

Fort A.P. Hill, in Caroline County, has nearly 55,000 acres of huntable land. Despite fairly heavy hunting pressure over decades, an emphasis on harvesting bucks resulted in overpopulation, evidenced by poor deer herd health. The field-dressed weights for fawns and yearling buck weights averaged only 33 and 65 pounds, respectively, far short of the desired 50 and 85 pounds. In addition, the majority of the yearling bucks were spike bucks (having only 1 or 2 antler points). The deer had exceeded the carrying capacity of the habitat.

After increasing hunter activity, by adding a special muzzleloader season and following three years of intensive efforts to increase the doe harvest, improvements are being seen.

The herd health analysis during the most recent hunting season shows an increase in the average fawn weights to almost 40 pounds and a decrease in the number of yearling bucks with spikes from 73 percent in 1997/1998 to 61 percent in 1999/2000. A number of heavy-beamed, wide-antlered bucks were taken in many regions of the post.

Fort A.P. Hill and the Virginia Department of Game and Inland Fisheries are close partners in managing the fish and wildlife on the post.

All money generated from the sale of hunting and fishing permits on Fort A. P. Hill is used for habitat and conservation work. Many habitat improvement projects are under way, including extensive planting of native warm season grasses, clover and lespedeza, as well as crab apple, dogwood, persimmon, and Chinese chestnut trees.

Hunters with disabilities can find what they need at Fort A. P. Hill. The installation offers a lifetime hunting permit for the price of a single year. Further, an entire training area has been designated for handicapped hunting.

Many caring organizations have helped Fort A. P. Hill to improve this area for handicapped hunters: The Virginia Deer Hunters Association, the Virginia Department of Game and Inland Fisheries, and the National Rifle Association helped to supply lumber, seed, trails, and pop-up blinds. A HUNTMASER hydraulic lift, several other pop-up blinds, and a few Buckingham Palace handicapped hunting stands were generously donated by Raytheon Corporation to Handicapped Americans for Wildlife Conservation (HAWC) who in turn gave them to Fort A. P. Hill.

The area currently has four wheelchair accessible stands that were constructed by Fort A. P. Hill conservation volunteers.

The Basics of Hunting on Fort A. P. Hill

by Heather Mansfield,
Fort A. P. Hill Wildlife Biologist

All pertinent state and federal hunting licenses are required. A

hunter education certificate is also required for all hunters age 12 and older. Fort A. P. Hill has deer, fall and spring turkey, dove, duck, squirrel, rabbit, and crow seasons. Archery tackle, muzzleloaders (during the special muzzleloader season only), and shotguns with buckshot or slug are permitted. A separate hunting area with wheelchair accessible stands is set aside for disabled hunters. For a copy of the installation's hunting regulations, send a SASE to Wildlife Section, DPW ENRD, 19952 N. Range Rd., Fort A. P. Hill, VA 22427-3123. For questions call (804) 633-8300. □

Hunter Education Championship Results

The 2000 Virginia Hunter Education Youth Championships were held this past spring at Holiday Lake 4-H, in Appomattox, Virginia. Sponsored by the Virginia Department of Game and Inland Fisheries, the event brings young hunter education graduates from around the state to compete in six hunting-related events: orienteering skill, wildlife identification, hunter safety trail, archery, rifle, and shotgun.

Participants in the championships must meet the following requirements: a certified hunter education instructor must accompany each team or individual, individual participants are assigned and compete on a team; competition contestants must be the appropriate age by registration deadline date. Age groups consists of junior (12-14) and senior (15-19).

Congratulations to the winners of this year's Hunter Education Championships:

Junior Individual Champion
Jason Corbett, Augusta, County

Senior Individual Champion
Jamie Butler, Scott County

Junior Team Champions
Augusta, County
Stephen Nicely
Jason Corbett
Andrew Aldinger
Jason Alford

Senior Team Champions
Culpeper County
Jason Miller
Eric Hale
Amy Hale
Todd Suits
Lisa Caney

Water Trail Taking Shape in Virginia's River Country

by Sally Mills

While patches of fog lifted above lush new shoots of arrow arum and pickerelweed, a group of kayakers paddled the perimeter of the Pamunkey Indian Reservation and listened to river guide Garrie Rouse, of Mattaponi Canoe & Kayak, rattle off a familiar list of the area's natural and cultural attributes. On land nearby, a small group gathered around Vicki Shufer, a noted expert on native vegetation, as they walked the reservation's wooded and watery edges. On this tenth anniversary gathering of the Mattaponi & Pamunkey Rivers Association (MPRA), conservationists from near and far came to celebrate their beginnings and to look "downriver" together at an emerging focus for the group—public access—by formally dedicating the York River Water Trail.

The water trail concept is certainly not new. Moving across North America, it is a concept viewed with renewed excitement in Virginia, however. The Chesapeake Bay "Gateways and Water Trails" initiative attempts to put more passive users on the rivers by providing amenities that enable them to rest

and enjoy their surroundings during the long intervals of paddling between public access points. The initiative is being administered through the National Park Service in cooperation with the states. Marker buoys and finger docks typically signal these floating rest stops, and interpretive kiosks help visitors appreciate local history, flora, and fauna.

According to executive director of the Mattaponi & Pamunkey Rivers Association, Billy Mills, "This dedication culminates a couple of years of planning and collaboration on the part of many. We're excited about putting in place new facilities at five Virginia Department of Game and Inland Fisheries public landings this fall." To help in that effort, project teams led by senior boy scouts will deliver and install trail facilities in September during the Association's tenth annual stewardship day, all made possible through a Memorandum of Agreement with VDGIF.

Phil Lownes, capital outlay manager for VDGIF, referenced this formal arrangement with MPRA during his address at the trail dedication and hailed the emerging partnership between his agency, the river group, and the Virginia Department of Conservation and Recreation (DCR). Said Lownes, "We are here as partners in this trail that combines history and recreation, history and the outdoors. We appreciate the opportunity to be involved, and we look forward to enjoying the fellowship of the outdoors with you."

Start-up funds for trail facilities on the York system were awarded to MPRA through a project grant from the DCR. Opening with, "Any day on the river is a good day," DCR Director David Brickley noted that on previous visits to the Mattaponi and while paddling on the Pamunkey River that morning, he was struck by the beauty of the rivers and the promise that this water trail and the larger, baywide network holds for Virginians. Mr. Brickley added, "This is what Virginia is all about.

This is what heritage is all about."

For more details, visit MPRA's Web site, at: www.mpra.org. Look for additional information in a future issue of *Virginia Wildlife* as this water trail comes to life □

Eastern Shore Birding Festival

October 6–8, 2000

If you're into birds, (little birds, big birds, fast birds), or just looking to have a fun-filled weekend then flock on down to the Eighth Annual Eastern Shore Birding Festival. This year's activities will include birding field trips, habitat demonstrations, exciting exhibits, and wildlife arts and crafts. New boating trips have also been added this year and special nighttime watches for bats and owls are a hoot.

To help kick off this year's activities, nationally-known experts on birds and nature, Don and Lillian Stokes will be on hand. The Stokes, who host the popular public television series "Birdwatching with Don and Lillian Stokes" will be the guest speakers at the opening ceremony, 7:00 p.m., Friday, October 6th at the Sunset Beach Resort, Best Western.

The Eastern Shore Birding Festival is great family fun and is committed to increasing awareness of the role that Virginia's Eastern Shore plays in bird migration, emphasizing the importance of protecting habitat, and highlighting the mutual benefits of responsible nature tourism and habitat conservation. With 414 different species of birds, it's no wonder so many people consider this to be one of the best places in the United States to watch birds.

If you would like more information about the Eighth Annual Eastern Shore Birding Festival write to: Eastern Shore of Virginia, Chamber of Commerce, P.O. Box 460, Melfa, VA 23410 or visit their Web site at www.intercom.net/np0/esvabirding.

Operation Spruce-Up

by Bonnie Phillips

Operation Spruce-Up has resulted in an overwhelming response from citizens across Virginia, with about 400 events registered this past spring. Over 24,000 Virginians joined us this year to make Operation Spruce-Up a huge success! Held during the month of April, the spring campaign recognizes and encourages volunteers who contribute their time and energy to improve our natural resources. Volunteers have been working in their own communities, state parks, or other locations, picking up litter and debris, planting trees, shrubs and flowers, collecting recyclable materials, improving habitat for wildlife, restoring riparian buffers, and much more. When you consider their combined labor and thousands of hours of effort, their volunteer service continues to be of enormous value to their communities and to the Commonwealth.

Volunteers participating in registered events during Operation Spruce-Up received Certificates of Appreciation signed by Governor Gilmore.

Corporate sponsors were an integral part of Operation Spruce-Up. Contributions from corporations, small businesses, organizations, and private individuals were used to defray costs. Corporations, such as O'Sullivan, Geologics, Luck Stone, Reynolds Metals, Dupont, Hercules, Stack Financial, and Rocco, have continued to hold cleanups during Operation Spruce-Up and Fall River Renaissance. Newcomers this year were Canon, Corning, Volvo, Hickson, and Philip Morris. These companies are shining examples of businesses supporting their communities throughout Virginia.

Richmond Camera, the Department of Conservation and Recreation and the Department of Game and Inland Fisheries once again sponsored a photography contest. Leon App, Deputy Director of the Department of Conservation and Recreation and Lee Walker, editor of

Virginia Wildlife magazine, recognized the winners at the Shockhoe Bottom Arts Center on June 23, 2000. The winning pictures will be on display at the General Assembly Building in Richmond.

The best-in-show prize for the Operation Spruce-Up Photography Contest was awarded to Pat May of Harrisonburg. She won a log cabin getaway at a Virginia State Park of her choice.

To register for the upcoming Fall River Renaissance, or for more information, call 1-800-933-PARK, or in the Richmond area call (804) 786-5056. You can also visit our Web site at: <http://www.state.va.us/~dcr/temp/frhome.htm> □

National Hunting & Fishing Day September 23, 2000

National Hunting & Fishing Day (NHF) marks its 29th annual observance September 23rd, and plans are underway for a nationwide celebration and a natural invitation for everyone to step outside and share the values and fun of the outdoors. NHF day events are a great way to actively support hunting, fishing, and conservation. Around the country, NHF events will be taking place that will provide opportunities for outdoor-oriented people to learn more about outdoor skills and activities, like archery, firearms safety, canoeing, wildlife art, camping, and wildlife watching.

For more information on how you can get involved in this year's National Hunting & Fishing Day celebration, write: NHF Day, 11 Mile Hill Rd, Newtown, CT 06470-2359 or e-mail nhfday@nssf.org. □

Write On Target

by Lee Watts

The VDGIF information desk receives numerous phone calls concerning the loss or destruction of licenses. Here are two of the questions that we hear the most:

My fiancé and I lost our fishing licenses in the river. Someone told us there was an internet site to request re-issued licenses. Is this it? How do I do it?

— Amy Woolston, via the Website

Your friend is incorrect. To replace a lost license, you must return to the place of purchase. The License Agent will be able to look up your license and issue a duplicate to you. The cost for duplicate licenses is \$0.25 per duplicate. If the license agent is out of business, then you will need to contact Frances Boswell, Licensing Supervisor, at (804) 367-0917.

I washed my Bear-Deer-Turkey tags and they have fallen apart. Do I have to buy a new set to continue to hunt?

Go back to the agent from whom you originally purchased the tags. Once the agent has verified that you purchased the license from him, he will issue you a new set of tags. You will need to tell to the agent the tags you have used to check in game. The agent will remove those individual tags from the new set. This duplicate set of tags costs \$0.25.

Have a question? Need a regulation clarified? Want to know more about what this agency does? Direct your questions to: WriteOnTarget@dgif.state.va.us. Or call in your question at (804) 367-9369. Your question may appear in a future issue of *Virginia Wildlife* magazine's Journal Section. □

**Invest in the Future
Lifetime Hunting and
Fishing Licenses
(804) 367-1000**

**Report Wildlife Violations
1-800-237-5712**



Naturally Wild



story and illustration by Spike Knuth

The Broad-winged Hawk

One of the most spectacular migrations to take place each September in Virginia is that of the smallest of the group of hawks, known as buteos, the broad-winged hawk (*Buteo platypterus*). They come in formations of 10s, 20s and 50s, swirling and soaring in tight circles called "kettles," because of a likeness to a boiling, swirling kettle of water.

Broad-winged hawks breed in much of southern Canada, eastern United States, and south to the Gulf States. The adult broad-wing is basically brown above, with a white throat, and whitish undersides finely barred with rusty brown, which is denser on its breast. The tail is dark with bold white bands and a narrower white edge. Young birds are streaked with brown on their undersides and have duller tail markings.

This is a bird that prefers the solitude of a large, quiet, mostly decidu-

ous forest. It moves quietly and deliberately as it hunts for small mammals, like voles, chipmunks, shrews, red squirrels, and rabbits, but also small birds, frogs, snakes, grasshoppers, katydids, cicadas, and other large insects and insect larvae.

Sometimes it just sits quietly and motionless on a perch overlooking a small forest clearing, as if asleep. But all the while it is searching the understory for movement below that may be a potential meal. Because of its secretiveness, a broad-winged hawk's presence in a forest may go undetected.

When it does call, it is easily recognizable. The sound is described as a "hissing whistle," or "kweeee-

eeee," which is long and drawn out, falling in volume at the end. Broad-wings generally nest 10 to 80 feet up, in a fork of larger tree branches. It's a roughly constructed affair of sticks, bark strips, moss, feathers, and usually a sprig of fresh greenery of some kind. Sometimes they merely take over an old abandoned hawk or crow's nest and remodel it. Two to three eggs are normally laid, and the young grow fast on their varied diet brought by the parents.

With the coming of September, thousands of broad-wings ultimately gather along mountain ridges, soaring and circling on thermal updrafts as they meander southward as far as 5,000 miles to Central and South America. The peak of the migration is around mid-September, and can be seen all along the Blue Ridge, with Afton Mountain being one of many places to watch the procession. □





Backyard

by Marlene A. Condon



Attracting Wildlife

I want to encourage you to make your yard into a mini-refuge for wildlife.

As humans have begun to live virtually everywhere, it has become increasingly difficult for the wildlife of our land to survive. However, every landowner has the ability to make the land inviting to at least some forms of wildlife by using appropriate plantings, and in the process, every landowner will contribute to a better quality of life for humans. A yard that is transformed into a mini-refuge can be much more pleasing to the eye; it can require less labor (such as lawn mowing); and it should require much less pesticide and fertilizer, making the area safer for humans as well as animals.

The concept of a refuge for wildlife is not difficult to understand. Our wildlife need the same things that we need to survive every day: food, water, shelter from harsh

weather and predators, and a place to nest and raise young.

You can help a whole host of critters to survive right around your home by making some changes in your landscaping and gardening habits. For example, you might be

able to tolerate a little plant damage in order to avoid the use of pesticides that can poison the wildlife that you want to attract. Instead of pulling out every "weed," you might watch to see what kinds of animals make use of it. Perhaps your lawn could be made smaller and your flower gardens bigger.

The type of wildlife you attract will depend upon the type of habitat you can provide (for example, open like a field or closed like a mature woodland) because every creature has its own needs. If you want aquatic animals, you will need to put in a pond.

In the coming months I will write about how to alter your landscaping to attract wildlife, specific plants that are useful to grow, and projects that will enhance your habitat. Then you can experience the great pleasure of watching wildlife without ever leaving the comforts of home! □



*Even a very small yard can attract wildlife. The right kinds of potted flowering plants (such as *Nicotiana* and *Lantana* shown here) will bring in beautiful butterflies and tiny ruby-throated hummingbirds.*



A yard filled with many kinds of plants is much more alive than a yard with only a lawn. The author's backyard habitat has attracted more than four dozen species of butterflies, over 100 species of birds, and numerous species of reptiles, mammals, amphibians, and other insects.



A young black bear briefly checks out a small birdhouse by the author's driveway. These large mammals are uncommon visitors to backyard refuges.



*A silver-spotted skipper rests upon a showy cone flower (*Rudbeckia speciosa*), a good wildlife plant. These skippers do not often perch with their upper wing surfaces showing. Photos ©Marlene A. Condon.*

RECIPES

by Joan Cone

Dove—America's Most Important Game Bird

More people enjoy dove hunting every year. They outnumber all other bird shooters by a wide margin.

Now Quail Unlimited aims to be an organization which seeks to enhance dove hunting through research, habitat improvement, and more recreational opportunities for hunters, especially young hunters.

Remember to carry a small cooler with you when hunting, and place birds on ice as they are shot.

Menu

Dove With Port Wine Sauce

Snap Beans and Red Potatoes

Fall Salad

Impossible Pecan Pie

Dove with Port Wine Sauce

- 9 to 12 whole doves
- ¼ cup flour
- Salt to taste
- 2 tablespoons butter or margarine
- ¾ cup beef broth
- ¼ cup port wine
- 2 tablespoons raisins
- 3 whole cloves
- 1 tablespoon cornstarch
- 3 tablespoons cold water

Split dove into halves with game shears. In large, plastic food storage bag, combine flour and salt; shake to mix. Add dove and shake to coat. In large skillet, melt butter over medium heat. Add dove and brown on both sides. Add beef broth, port, raisins, and cloves to skillet. Heat to boiling. Reduce heat and cover. Simmer until doves are tender, 10 to 20 minutes. With slotted spoon, transfer dove to heated platter. Set aside and keep warm. Remove and discard cloves from skillet. In small mixing bowl, blend in cornstarch and water. Blend into cooking liquid in skillet. Heat to boiling, stirring

constantly, until sauce is thickened and translucent. Serve over dove. Allow 3 dove per person.

Snap Beans and Red Potatoes

- 4 medium-size red potatoes, peeled and quartered
- 1 pound fresh green beans, broken into 1 ½-inch pieces
- 3 bacon slices
- 1 large onion, sliced
- ¼ cup cider vinegar
- 2 teaspoons dried rosemary, crumbled
- ¼ teaspoon sugar
- Salt and freshly ground pepper to taste

Cook potatoes in boiling water to cover in a large saucepan 10 minutes or until tender. Drain and rinse with cold water; set aside. Cook beans in boiling water to cover in saucepan 3 to 4 minutes or until crisp-tender. Remove from heat and plunge into ice water. Drain and set aside. Cook bacon in a skillet until crisp. Remove bacon, reserving drippings in skillet, and crumble. Sauté onion in hot drippings until crisp. Stir in vinegar, rosemary, and sugar. Salt and pepper to taste. Add potatoes and beans and cook stirring occasionally, until heated. Sprinkle with bacon. Makes 6 servings.

Fall Salad

- 3 pears, cut into ¾-inch cubes
- 1 cup Italian salad dressing, divided
- 6 cups torn mixed salad greens
- ½ cup toasted chopped walnuts
- ½ cup dried cranberries

Toss pears with ½ cup of the dressing in medium bowl. Let stand 15 minutes. Toss greens, walnuts, and cranberries in large bowl. Add pears and dressing; toss lightly. Serve immediately with remaining dressing. Makes 4 servings.

Impossible Pecan Pie

- 1 ½ cups chopped pecans
- ¾ cup packed brown sugar
- ¾ cup milk
- ¾ cup dark corn syrup
- ½ cup biscuit baking mix
- ¼ cup butter or margarine, softened
- 4 eggs
- 1 ½ teaspoons vanilla

Heat oven to 350° F. Grease a pie plate, 10 x 1½-inches. Sprinkle pecans in plate. Beat remaining ingredients until smooth, 15 seconds in blender on high or 1 minute with hand beater. Pour into pie plate. Bake until knife inserted in center comes out clean, 50 to 55 minutes. Cool 5 minutes. Makes 8 to 10 servings. □



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On The Water

by Jim Crosby, Region 4 Boater Education Coordinator

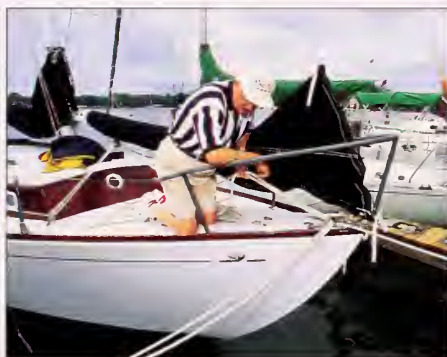
Freshwater Inland Sailing

The peace, quiet, and tranquility of skittering across a placid lake on a wind-driven, small craft are boundless. Feeling the cooling breeze neutralize the warm sunshine on your face, and listening to the calming sound of the water trickling down your gunwale is a powerful tranquilizer. As your vessel floats across the water, you can forget your troubles and exist in a perfect world previously believed to be beyond your grasp. This is the sailor's true secret, discovered by very few, yet available to all who are willing to venture forth on a sailboat.

Sailing away from a freshwater launch ramp can be just the right medicine for today's harried lifestyle, and Virginians are very fortunate to have so many inland lakes and water impoundments available to them. Many freshwater impoundments welcome sailboats and prohibit powerboats for fear of petroleum product pollution of drinking water resources.

Check your neighborhood for a freshwater lake of 25 acres or more—that's all you need. Bet you can find one within an easy drive of your own backyard. Your local Parks and Recreation Department could be a great resource for locating the freshwater sailing opportunities available in your area. They might even know about learning opportunities, competition, and what type boats are sailed.

What to sail in freshwater is a good question. There are literally hundreds of choices. Sailboats have classes to make matching them up for competition easier. Some popular classes include Sailfish, Sunfish,



©Dwight Dyke

Penguin, Laser, Lightning, Thistle, Robin, and Sunflower. Owners of some class's band together and form clubs to swap news, information, and organize competition. I recommend checking around to find out what classes are sailed in your area. It's more fun to sail with the pack because people with experience are available to help you with your own vessel.

Once sailed with a club that had a fleet of Thistles and Sailfish. From the thaw of spring, to the first freeze in the fall, the club had Sunday afternoon competition. They had formal, sign-up races and impromptu events launched by the challenge, "Hey, I'll race you to the red buoy and back." Whoever showed up would crew the boats and challenges were swapped all day long. The Thistles, 19-foot long and too big to carry ashore, were moored with only their hulls and standing rigging left to the weather. The Sailfish were stacked in the clubhouse along with all the sails from both classes.

My own sailing experience includes everything from a three-masted schooner to a sailboard. I now have a Sunfish that we sail most frequently on Beaver Creek

Reservoir, in Albemarle County, and occasionally on Lake Anna. It can be car-topped and handled by two adults. I like it better than the Sailfish because it has a foot well that offers more comfort. The Sailfish has a flat deck and requires you to sit cross-legged, or lie on it, while underway. Both have a single mast, and a triangular shaped sail. Suspended between two light aluminum poles hinged at the end, the sail is drawn up the mast with a halyard. They can be sailed solo or with a partner. Three persons make them crowded and sluggish from pure passenger weight. They are very efficient and require little wind to push them along.

Inland lakes offer an unusual challenge. The wind will change direction and velocity several times along a given tack, requiring a constant monitoring of sail position and balancing of body weight. A sudden shift in the wind, and you'll be overboard trying to figure out how to right your boat—a technique that is easy but must be learned, and preferably, in shallow water until you get the hang of it. Wearing a Coast Guard approved personal flotation device is an absolute must because you are more likely to end up in the water and the buoyancy will be necessary to the successful righting of your boat.

Once mastered, and sailing becomes second nature, the lazy days of lollygagging on the lake will best any tranquillity that comes from a pill bottle. After all these years, I am still awed by the forces of nature pushing my boat along at an inspiring clip—it's breathtaking. □



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